

Application No. 10/555,586  
Amendment Dated June 26, 2007  
Reply to Office Action of March 26, 2007

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (withdrawn) A method for determining the mechanical strength of an atherosclerotic plaque comprising subjecting an excised plaque to force or pressure means and measuring the amount of force or pressure required to rupture the plaque.
2. (cancelled)
3. (previously presented) A method for determining the ability of a test compound to enhance plaque stability comprising:  
administering a test compound to an animal possessing an atherosclerotic plaque,  
excising the plaque,  
subjecting the excised plaque to pressure or force means,  
measuring the amount of pressure or force required to rupture the plaque, and,  
based on the amount of pressure or force relative to a control amount, assessing whether or not  
the compound enhances plaque stability.
4. (withdrawn) A method for determining the ability of a test compound to enhance plaque stability comprising:
  - (i) administering a test compound to a non-human test animal possessing atherosclerotic plaques;
  - (ii) excising a plaque containing vessel segment from the animal;
  - (iii) applying physical force to the plaque from step (ii);
  - (iv) measuring the amount of physical force required to rupture the plaque;
  - (v) carrying out steps (ii) to (iv) with a control animal possessing atherosclerotic plaques that has not been treated with the test compound;
  - (vi) comparing the amount of plaque rupture force from step (iv) and (v) and, if the plaque rupture force from step (iv) is greater than that from step (v) identifying the test compound as one that enhances plaque stability.
5. (withdrawn) The method according to claim 4, wherein the test animal has been induced to develop atherosclerotic plaques by dietary feeding.

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6. (withdrawn) The method according to claim 4, wherein the test animal is a transgenic or knock-out animal.

7. (withdrawn) The method according to claim 6, wherein the knock-out animal is a single or double knock-out animal.

8. (withdrawn) The method according to claim 6 or 7, wherein the test animal has a defunct LDL receptor and/or a defunct APO E receptor.

9-12. (cancelled)

13. (currently amended) The method according to claim 3~~any one of claims 3 or 4~~, wherein the animal is: a mouse, ~~rat, gerbil, hamster, guinea pig, rabbit, dog, cat, monkey, pig, sheep, cow, or goat~~.

14. (withdrawn) The method according to claim 4, wherein the physical force applied to the plaque in step (iii) is tensile force.

15. (withdrawn) The method according to claim 4, wherein the physical force applied to the plaque in step (iii) is carried out by mounting the plaque in a holder and allowing a solid member to push against the inside of the vessel opposed to the plaque and measuring the amount of force required to rupture the plaque.

16. (currently amended) The method according to claim 3~~any one of claims 1, 3, or 4~~, wherein the amount of force is measured using a force transducer.

17-22. (cancelled)

23. (currently amended) The method according to claim 3~~any one of claims 1, 3, or 4~~, wherein the plaque is an aortic plaque.

24. (cancelled)

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25. (withdrawn) A method for determining whether or not a compound has potential in treating or preventing cerebro- or cardiovascular events due to plaque rupture, comprising testing the ability of the compound to enhance plaque stability in an *ex vivo* plaque stability assay.
26. (withdrawn) The method according to claim 25, wherein the *ex vivo* plaque stability assay comprises subjecting an excised plaque to force or pressure means and measuring the amount of force or pressure required to rupture the plaque.
27. (withdrawn) The method according to claim 25 or 26, wherein the cardiovascular event is primary or secondary myocardial infarction.
28. (withdrawn) A device for determining the mechanical strength of a plaque comprising means for securing a plaque-burdened vessel and means for exerting a physical force on the plaque burdened vessel.
29. (withdrawn) The device according to claim 28, further comprising means for measuring the physical force.
- 30-49. (cancelled)